

ORDINANCE NO. 1899
CITY OF MILWAUKIE

AN ORDINANCE AMENDING CHAPTERS 16.28 AND 18.04 OF THE MILWAUKIE MUNICIPAL CODE AND AMENDING ORDINANCES 1718 AND 1461 BY ADOPTING CERTAIN FLOOD MANAGEMENT AND EROSION CONTROL REGULATIONS.

WHEREAS, the Municipal Code is required to be consistent with Metro Urban Growth Management Functional Plan Title 3; and

WHEREAS, the changes in the Municipal Code adopted by this ordinance will make the Municipal Code compliant with Title 3; and

WHEREAS, Chapter 16.28 of the Milwaukie Municipal Code was adopted by Ordinance 1718; and

WHEREAS, Chapter 18.04 of the Milwaukie Municipal Code was adopted by Ordinance 1461; and

WHEREAS, duly noticed public hearings were held by the Planning Commission on March 26, 2002, and by the City Council on April 16, 2002; and

WHEREAS, the changes shown in redline in the attached Exhibit E are necessary to provide appropriate protection for natural resources in the City; now, therefore;

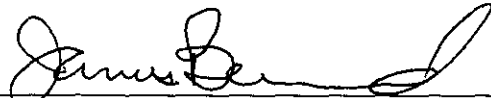
THE CITY OF MILWAUKIE ORDAINS AS FOLLOWS:

- Section 1: Chapter 16.28 of the Milwaukie Municipal Code is amended as shown in the attached Exhibit A.
- Section 2: Chapter 18.04 of the Milwaukie Municipal Code is amended as shown in the attached Exhibit B.
- Section 2: The findings in the staff report dated April 16, 2002, including the compliance report, are adopted as findings of the City Council. The findings in support of adoption are attached hereto as Exhibit C. The City Council further adopts the compliance report set forth in Exhibit D.
- Section 3: Ordinances 1718 and 1461 are amended consistently with the amendments of Chapters 16.28 and 18.04 of the Milwaukie Municipal Code.

Read the first time on April 16, 2002, and moved to second reading by 5 - 0 vote of the City Council.

Read the second time and adopted by the Council on April 16, 2002.

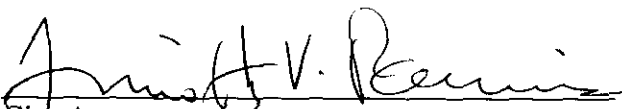
Signed by the Mayor on April 16, 2002.


James Bernard, Mayor

ATTEST:


Pat DuVal, City Recorder

APPROVED AS TO FORM:
RAMIS, CREW, CORRIGAN &
BACHRACH, LLP


City Attorney

Chapter 16.28 EROSION CONTROL

Sections:

- 16.28.010 General Policy**
- 16.28.020 Erosion control permit and erosion control plans—Applicability—Conformance.**
- 16.28.030 Contents of erosion control plan and general requirements.**
- 16.28.040 Approval process—Fees.**
- 16.28.050 Maintenance and Amendment of inadequate measures.**
- 16.28.060 Work in progress.**
- 16.28.070 Performance.**
- 16.28.080 Erosion Control Certification.**
- 16.28.090 Inspection**
- 16.28.100 Deposit of Sediment**
- 16.28.110 Enforcement—Violation—Penalty.**

Section 16.28.010 General Policy

A. The policies of this chapter shall apply during construction and until permanent measures are in place following construction as described herein, unless otherwise noted.

B. Temporary and permanent measures for all construction projects shall be required to lessen the adverse effects of erosion and sedimentation. The owner or his/her agent, contractor, or employee, shall properly install, operate and maintain both temporary and permanent works as provided in this section or in an approved plan, to protect the environment during the useful life of the project. These erosion control rules apply to all lands within the City of Milwaukie.

C. Nothing in this chapter shall relieve any person from the obligation to comply with the regulations or permits of any federal, state, or local authority.

D. Maintenance and repair of existing facilities shall be the responsibility of the owner of record.

E. Erosion, sedimentation, and other pollutants reaching the public storm and/or surface water system resulting from development, construction, grading, filling, excavating, clearing, and any other activity which accelerates erosion shall be prevented.

F. No visible or measurable erosion shall leave the property during construction or during activity described in (E) above. The owner of the property, together with any person who causes such action from which the visible or measurable erosion occurs, shall be responsible for clean up, fines, and damages. Clean up responsibilities include clean up of creeks, drainageways, or wetlands impacted by a project. For the purposes of this chapter “visible and measurable erosion” includes, but is not limited to:

1. Deposits of mud, dirt, sediment or similar material exceeding one-half cubic foot in volume on public or private streets, adjacent property, or into the storm and surface water system, either by direct deposit, dropping, discharge, or as a result of the action of erosion;
2. Evidence of concentrated flows of water over bare soils; turbid or sediment-laden flows; or evidence of onsite erosion such as rivulets or bare soil slopes, where the flow of water is not filtered or captured on the site, and/or;
3. Earth slides, mud flows, earth sloughing, or other earth movement which results in material leaving the property.

G. Dust and other particulate matters containing pollutants can settle on property and be carried to waters of the state through rainfall or other means. Dust shall be minimized to the extent practicable, utilizing all measures necessary, including, but not limited to:

1. sprinkling haul and access roads and other exposed dust producing areas with water;
2. establishing temporary vegetative cover;

3. placing wood chips or other effective mulches on vehicle and pedestrian use areas;
4. use of covered haul equipment; and/or.
5. pre-wetting cut and borrow area surfaces.

Section 16.28.020 Erosion control permit and erosion control plans--Applicability--Conformance.

A. Definitions

1. "Erosion control permit" means the official approval issued by the City that demonstrates compliance with this chapter for activities described in the application form, erosion control plan, and related materials submitted pursuant to this Chapter.
2. "Erosion Control Plan" means all documents, maps, plans and other information specified in Section 16.28.030 and submitted in association with an application for an erosion control permit.

B. An erosion control plan that meets the requirements of Section 16.28.030 is required prior to any approval of an erosion control permit.

C. An erosion control permit is required as follows:

1. Prior to placement of fill, site clearing, or land disturbances including but not limited to grubbing, clearing or removal of ground vegetation, grading, excavation, or other activities, any of which results in the disturbance or exposure of soils exceeding 500 square feet.
2. For disturbed areas or exposed soils less than 500 square feet, where the City has determined that site conditions may result in visible and measurable erosion and where the City has provided written notice of the requirement to obtain an erosion control permit to the property owner. Upon notice by the City, all work shall cease pending approval of an erosion control permit and installation of approved erosion control measures.
3. For any lot designated Natural Resource Overlay Zone pursuant to Milwaukie Zoning Ordinance Section 322, an erosion control permit shall be required prior to placement of fill, site clearing, or land disturbances including but not limited to grubbing, clearing or removal of ground vegetation, grading, excavation, or other activities, any of which has the potential for, or results in visible and measurable erosion, regardless of the area of disturbance.

D. An erosion control permit shall not be issued for activities on lots zoned Natural Resource Overlay, where the site activity has not been authorized, or is not exempt under the provisions of Milwaukie Zoning Ordinance Section 322 Natural Resource Overlay Zone as determined by the Planning Director. This provision does not apply where the erosion control permit is associated with correction of a violation of city code or as necessary for public safety, or the protection of property or water quality.

E. Timing. Approval of the erosion control permit is required prior to the following, whichever comes first.

1. Issuance of grading permits, building permits, and approval of construction plans for subdivision; or
2. Placement of fill, site clearing, land disturbances including but not limited to grubbing, clearing or removal of ground vegetation, grading, excavation, or other activities, any of which disturbs or exposes soil.

F. Erosion control measures set forth in any approved erosion control plan shall be implemented and maintained on the site until the date set forth in the plan, or the amended date as necessary for the establishment of final landscaping. The city may allow for the removal of erosion control measures at an earlier date if erosion control is assured by established landscaping. (Ord. 1718 § 1 (part), 1992)

Section 16.28.030 Contents of erosion control plan and general requirements.

A. Erosion control plans shall include a description of erosion control methods that are adequate to ensure that runoff siltation and pollutants from the grading, site clearing or construction are contained on-site during the period of activity on the site until the final landscaping is sufficiently established to control erosion. Each plan shall contain a date which is the estimated ending date for maintaining erosion control measures. That date may be extended if final landscaping has not been sufficiently established to

control erosion. Plan submittal requirements, and recommended erosion control measures, are included in the Clackamas County/City of Milwaukie Technical Guidance Handbook for Erosion/Sedimentation Control Plans (August 1991) (Guidance Handbook), which is hereby adopted in total as part of this chapter. Copies of the Guidance Handbook are available for a fee at the city public works department. (Ord. 1718 § 1 (part), 1992)

B. At a minimum the Erosion Control Plan shall include:

1. The methods and/or facilities to be used to prevent erosion and pollution created from the development both during and after construction. Site-specific considerations shall be incorporated.
2. Limits of clearing by flagging boundaries in the field before starting site grading or construction. Staging areas shall be included.
3. An analysis of source controls such as detention and storage techniques during construction showing existing contours as an alternative method to control erosion from storm water runoff.
4. A drainage plan during construction.
5. Existing contours as well as all sensitive areas, creeks, streams, wetlands, open areas and areas of natural riparian vegetation pursuant to chapter 322.
6. A description of historic localized flooding problems resulting from surface water runoff, FEMA or flooding problems known to the community or the local jurisdiction.

C. A site plan prepared by an Oregon registered engineer shall be required for sites with disturbed area of 5 acres or greater.

D. Additional measures required by (C) above may include one or more of the following:

1. Limited area cleared at any one time.
2. Additional drainage requirements during construction.
3. Filtering or treatment of runoff.
4. Additional water quality measures.
5. Additional erosion control to cover portions of the site.
6. Maintaining some existing vegetation adjacent to water features, such as creeks, streams and wetlands or areas of natural riparian vegetation pursuant to chapter 322
7. Additional facilities to reduce volume and velocity of water runoff.
8. If there are no workable alternatives, limit clearing and grading in some areas between November 1 and April 30. ;
9. Additional measures required by the Guidance Handbook.

E. All construction activities disturbing five (5) or more acres shall obtain an NPDES erosion control permit for construction activities issued by the City of Milwaukie.

Section 16.28.040 Approval process--Fees.

Fees to cover the cost of erosion control plan review, site inspections and the Clackamas County/City of Milwaukie Technical Guidance Handbook for Erosion/ Sedimentation Control Plans (August 1991) will be set by city council resolution. (Ord. 1718 § 1 (part), 1992)

Section 16.28.050 Maintenance and amendment of inadequate measures.

The applicant shall maintain all facilities required by an approved Erosion Control Plan so as to assure their continued effectiveness during construction or other permitted activity. If the facilities and techniques approved in an Erosion Control Plan are not effective or sufficient as determined by the City's site inspector, the permittee shall submit a revised plan within three working days of written notification by the City. In cases where erosion is occurring, the City may require the Applicant to implement interim control measures prior to submittal of a revised Erosion Control Plan and without limiting the City's right to undertake enforcement measures. Upon approval of the revised plan by the City, the permittee shall immediately implement the revised plan.

Section 16.28.060 Work in progress.

Permittees or property owners for any site activities which were underway on the effective date of the ordinance codified in this chapter, may be required to prepare an erosion control plan for approval

pursuant to this chapter. If the city determines that an erosion control problem exists, and requests an erosion control plan, ground work on the site shall cease pending approval of the plan and installation of approved erosion control measures. The provisions of this section shall apply only until final landscaping on the site is sufficiently established to control erosion. (Ord. 1718 § 1 (part), 1992)

Section 16.28.070 Performance.

The City may require the Applicant to submit a bond, cashier's check or irrevocable letter of credit from an acceptable financial institution to secure performance of the requirements of this chapter. Upon default, the City may perform work or remedy violations and draw upon the bond or fund. If the City does not require a bond and the Developer does not perform the erosion control plan in whole or in part, the City may, but shall not be obligated to, perform or cause to be performed corrective work and charge the Developer. Such amount shall bear interest at 9% per annum and shall be a lien upon the property foreclosable in accordance with ORS Chapter 88.

Section 16.28.080 Erosion Control Certification.

A. Developers/contractors of building activities requiring erosion control permits who have a certified individual on staff with authority over erosion control and who is responsible for erosion control of the site, are eligible for a discount of their erosion control fees in accordance with the city fee schedule. On large or complex sites, the City may require an individual certified in erosion control to be on site at all times. Violations of this title that result in enforcement procedures described in Section 16.28.110, will result in revocation of the certification and require payment of the full erosion control fee. Recertification is required following erosion control violations resulting in enforcement actions. If certification is revoked, there may be additional inspection fees.

B. Certification shall involve training in erosion control techniques, issues, and implementation strategies. A minimum of four (4) hours of classroom instruction shall be required every two (2) years.

Section 16.28.090 Inspection

The erosion control measures shall be installed by the owner or their representative and shall be inspected by the City prior to the start of any excavation work.

Section 16.28.100 Deposit of Sediment

No person shall drag, drop, track, or otherwise place or deposit, or permit to be deposited, mud, dirt, rock or other such debris upon a public street or into any part of the public storm and surface water system, including natural drainage systems, or any part of a private storm and surface water system which drains or connects to the public storm and surface water system, with the exception of sanding for ice and snow and maintenance such as crack or chip sealing. Any such deposit of material shall be immediately removed using hand labor or mechanical means. No material shall be washed or flushed into the road/street or any part of the storm or surface water system without erosion control measures installed to the satisfaction of the City, and any such action shall be an additional violation.

Section 16.28.110 Enforcement--Violation--Penalty.

A. The public works director or designee shall enforce the provisions of this chapter.

B. Beginning or continuing site-clearing, grading or construction activities without an approved erosion control plan required by this chapter constitutes a violation of this chapter. Failure to implement the erosion control measures set forth in the approved erosion control plan constitutes a violation of this chapter. No building shall be certified for occupancy if the property is deemed to be in violation of this chapter. Any person convicted of violating this chapter shall be punished by a fine of not more than three hundred dollars. Each day that such violation exists shall be deemed a separate violation of this chapter. (Ord. 1718 § 1 (part), 1992)

Chapter 18.04**FLOOD HAZARD AREAS****Sections:**

18.04.010	Purpose.
18.04.020	Methods of reducing flood losses.
18.04.030	Definitions.
18.04.040	Applicability.
18.04.050	Basis for establishing areas of special flood hazard and flood management areas.
18.04.060	Compliance required—Violation—Penalty.
18.04.070	Abrogation and greater restrictions.
18.04.080	Interpretation.
18.04.090	Warning—Liability disclaimer.
18.04.100	Development permit required.
18.04.110	Director of Engineering—Designated administrator.
18.04.120	Director of Engineering—Duties and responsibilities.
18.04.130	Variance—Appeal board.
18.04.140	Variance—Conditions.
18.04.150	General standards.
18.04.160	Specific standards.
18.04.170	Floodways.

Section 18.04.010 Purpose.

It is the purpose of this chapter to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

- A. To protect human life and health;
- B. To minimize expenditure of public money and costly flood control projects;
- C. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- D. To minimize prolonged business interruptions;
- E. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;
- F. To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;
- G. To ensure that potential buyers are notified that property is in an area of special flood hazard;
- H. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions (Ord. 1461 Art. 1 § 1, 1980); and
- I. To maintain the functions and values of floodplains such as allowing for storage and conveyance of stream flows through existing and natural flood conveyance systems.

Section 18.04.020 Methods of reducing flood losses.

In order to accomplish its purposes, this chapter includes methods and provisions for:

- A. Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;

B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

C. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;

D. Controlling filling, grading, dredging, and other development which may increase flood damage; and

E. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas. (Ord. 1461 Art. 1 § 2, 1980)

Section 18.04.030 Definitions.

Unless specifically defined in this section, the words or phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable application:

A. "Appeal" means to request review of the city's interpretation of any provision of this chapter or a request for a variance.

B. "Area of February 1996 inundation" means the areas along the Willamette River and its backwaters of Johnson and Kellogg Creeks that were flooded to elevation 34.5 (NGVD) in February of 1996.

C. "Area of special flood hazard" means the land in the floodplain within a community subject to a one-percent or greater chance of flooding in any given year.

D. "Base flood" means the flood having a one-percent chance of being equaled or exceeded in any given year.

E. "City" means the city of Milwaukie, Oregon.

F. "Critical feature" means an integral and readily identifiable part of a flood protection system, without which the flood protection provided by the entire system would be compromised.

G. "Development" means any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations.

H. "Design Flood Height" means the higher elevation of the following:

1. the elevation of the 100-year storm as defined in FEMA Flood Insurance Studies and shown as Zone A on Flood Insurance Rate Maps; or

2. water surface elevation of 34.5, the elevation of the February 1996 flood event measured for the Willamette River.

I. "FEMA" means the Federal Emergency Management Agency.

J. "Flood" or "flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from:

1. The overflow of inland or tidal waters; or

2. The unusual and rapid accumulation of runoff of surface waters from any source.

K. "Flood Insurance Rate Map (FIRM)" means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

L. "Flood Insurance Study" means the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Boundary-Floodway Map, and the water surface elevation of the base flood.

M. "Flood Management Areas" means all lands contained within the 100-year floodplain, and floodway as shown on the Federal Emergency Management Agency Flood Insurance Rate Maps and Floodway Maps, and the areas of inundation for the February 1996 flood as shown on the Metro Water Quality and Flood Management Area Maps.

N. "Flood storage area" means that area below the design flood height but above bankful stage, which is capable of storing flood waters during a flood event.

O. "Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

P. "Habitable floor" means any floor usable for living purposes, which includes working, sleeping, eating, cooking or recreation, or a combination thereof. A floor used only for storage purposes is not a "habitable floor".

Q. "Levee" means a manmade structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.

R. "Levee system" means a flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.

S. "Lowest floor" means the lowest floor of the lowest enclosed area (including basements and any crawlspace that is below grade). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage, in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable nonelevation design requirements of this chapter.

T. "Manufactured home" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designated for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes, the term "manufactured homes" also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than one hundred eighty consecutive days. For insurance purposes, the term "manufactured homes" does not include park trailers, travel trailers, and other similar vehicles.

U. "Manufactured home park or subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

V. "Mean sea level" means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are reinforced.

W. "New construction" means structures for which the "start of construction" commenced on or after the effective date of the ordinance codified in this chapter.

X. "Remedy a violation" means to bring a structure or other development into compliance with state or local floodplain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of this chapter or otherwise deterring future similar violations, or reducing federal financial exposure with regard to the structure or other development.

Y. "Start of construction" means and includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within one hundred eighty days of the permit date. The "actual start" means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation, or the placement of a manufactured home on a foundation. "Permanent construction" does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footing, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory

buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.

Z. "Structure" means that which is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner.

AA. Substantial Improvement.

1. "Substantial improvement" means any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds fifty percent of the market value of the structure either:

- a. Before the improvement or repair is started; or
- b. If the structure has been damaged and is being restored, before the damage occurred.

For the purposes of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

2. "Substantial improvement" does not include either:

- a. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or
- b. Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

BB. "Variance" means a grant of relief from the requirements of this chapter which permits construction in a manner that would otherwise be prohibited by this chapter.

CC. "Violation" means the failure of a structure or other development to be fully compliant with the city's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in the FEMA standards is presumed to be in violation until such time as that documentation is provided.

DD. "Water surface elevation" means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929, (or other datum, where specified) of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas. (Ord. 1626 § 2(A), (B), 1987; Ord. 1461 Art. 2, 1980)

Section 18.04.040 Applicability.

A. This chapter shall apply to all special flood hazard areas and all flood management areas within the jurisdiction of the city. (Ord. 1461 Art. 3 § 1, 1980)

B. In the event that a claim for just compensation is made against the City pursuant to Article I, section 18 of the Oregon Constitution based on the application or enforcement of this title, the City Council may waive, suspend, or modify application or enforcement of this title if the City Council determines that application or enforcement would result in an unconstitutional taking. In the event that the waiver, suspension or modification results in a state statute or regulation becoming directly applicable, the City will enforce the state law as required.

Section 18.04.050 Basis for establishing special flood hazard and flood management areas.

A. The areas of special flood hazard identified by the Federal Insurance Administration in the scientific and engineering report entitled "The Flood Insurance Study for the City of Milwaukie," dated December 1979, with accompanying Flood Insurance Rate Maps and Floodway Maps, dated June 18, 1990, and other FEMA maps and studies for those areas annexed or restudied, are adopted by reference and declared to be a part of this chapter. The Flood

Insurance Study is on file at 6101 SE Johnson Creek Boulevard, Milwaukie, Oregon. (Ord. 1461 Art. 3 § 2, 1980)

B. Those areas designated as Flood Management Areas on the Water Quality and Flood Management Areas Maps prepared by Metro are adopted by reference and declared to be a part of this chapter. Copies of the Metro Water Quality and Flood Management Areas Maps for the City of Milwaukie are on file at 6101 Johnson Creek Boulevard, Milwaukie, Oregon.

Section 18.04.060 Compliance required--Violation--Penalty.

No structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the terms of this chapter and other applicable regulations. Violation of the provisions of this chapter shall be punishable by a fine of not more than one thousand dollars. Nothing contained in this subsection shall prevent the city from taking such other lawful action as is necessary to remedy any violation. (Ord. 1461 Art. 3 § 3, 1980)

Section 18.04.070 Abrogation and greater restrictions.

This chapter is not intended to repeal, abrogate or impair any existing easements, covenants or deed restrictions. However, where this chapter and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail. (Ord. 1461 Art. 3 § 4, 1980)

Section 18.04.080 Interpretation.

In the interpretation and application of this chapter, all provisions shall be:

A. Considered as minimum requirements;

B. Liberally construed in favor of the city; and

C. Deemed neither to limit nor repeal any other powers granted under state statutes. (Ord. 1461 Art. 3 § 5, 1980)

Section 18.04.090 Warning--Liability disclaimer.

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural cases. This chapter does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the city, any officer or employee thereof, or the Federal Insurance Administration, for flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder. (Ord. 1461 Art. 3 § 6, 1980)

Section 18.04.100 Development permit required.

A development permit shall be obtained before construction or development begins within any special flood hazard or flood management area established in Section 18.04.050. The permit shall be for all structures, including manufactured homes, as set forth in Section 18.04.030 and for all other development including fill and other activities, also as set forth in Section 18.04.030. Application for a development permit shall be made on forms furnished by the Director of Engineering and may include, but not be limited to: plans in duplicate drawn to scale showing the nature, location, dimensions and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing. Specifically, the following information is required:

A. Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures;

B. Elevation in relation to mean sea level to which any structure has been floodproofed;

C. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in Section 18.04.160B; and

D. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development. (Ord. 1626 § 2(G)(part), 1987; Ord. 1461 Art. 4 § 1, 1980)

Section 18.04.110 Director of Engineering--Designated administrator.

The Director of Engineering is appointed to administer and implement this chapter by granting or denying development permit applications in accordance with its provisions. (Ord. 1461 Art. 4 § 2, 1980)

Section 18.04.120 Director of Engineering--Duties and responsibilities.

Duties of the Director of Engineering shall include, but not be limited to:

A. Permit Review.

1. Review all development permits to determine that the permit requirements of this chapter have been satisfied;

2. Review all development permits to determine that all necessary permits have been obtained from those federal, state or local governmental agencies from which prior approval is required;

3. Review all permit applications to determine whether proposed building sites will be reasonably safe from flooding. If a proposed building site is in a flood-prone area, all new construction and substantial improvements shall:

a. Be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;

b. Be constructed with materials resistant to flood damage;

c. Be constructed by methods and practices that minimize flood damages; and

d. Be constructed with electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

B. Use of Available Base Flood Data. When base flood and floodway elevation data has not been provided for flood zones in accordance with Section 18.04.050, the Director of Engineering shall obtain, review and reasonably utilize any base flood and floodway elevation data available from a federal, state or other source, in order to administer Section 18.04.160(A) and Section 18.04.160(B).

C. Information to be Obtained and Maintained.

1. Obtain and record the actual elevation (in relation to mean sea level) of the lowest habitable floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.

2. For all new or substantially improved floodproofed structures:

a. Verify and record the actual elevation (in relation to mean sea level), and

b. Maintain the floodproofing certifications required in Section 18.04.100(C) of this chapter;

3. Maintain for public inspection all records pertaining to the provisions of this chapter.

D. Alteration of Watercourses.

1. Notify adjacent communities and the Federal Emergency Management Agency (FEMA), Insurance and Mitigation Division, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration;

2. Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.

E. Interpretation of FIRM and flood management area boundaries. Make interpretations, where needed, as to exact location of the boundaries of the special flood hazard and/or flood management areas (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 18.04.130. (Ord. 1651 § 2, 1989; Ord. 1461 Art. 4 § 3, 1980)

Section 18.04.130 Variance--Appeal board.

A. The planning commission as established by the city shall hear and decide appeals and requests for variances from the requirements of this chapter.

B. The planning commission shall hear and decide appeals when it is alleged there is an error in any requirement, decision or determination made by the Director of Engineering in the enforcement or administration of this chapter.

C. Those aggrieved by the decision of the planning commission or any taxpayer, may have the determination reviewed by the city council and then under ORS 34.010 to 34.100.

D. In passing upon such applications, the planning commission shall consider all technical evaluation, all relevant factors and standards specified in other section of this chapter, and:

1. The danger that materials may be swept onto lands to the injury of others;
2. The danger of life and property due to flooding or erosion damage;
3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
4. The importance of the services provided by the proposed facility to the community;
5. The necessity to the facility of a waterfront location, where applicable;
6. The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
7. The compatibility of the proposed use with existing anticipated development;
8. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
9. The safety of access to the property in times of flood for ordinary and emergency vehicles;
10. The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and
11. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.
12. The balancing of potentially adverse environmental impacts that may result from meeting the requirements of this Chapter against the need to minimize impacts of new development on flood heights.

E. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing subdivisions 1 through 12 of subsection D of this section have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.

F. Upon consideration of the factors of subsection D of this section and the purposes of this chapter, the planning commission may attach such conditions to the granting of variances as it deems necessary to further the purposes of this chapter.

G. The Director of Engineering shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request. (Ord. 1461 Art. 4 § 4(A), 1980)

Section 18.04.140 Variance—Conditions.

A. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this section.

B. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

C. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

D. Variances shall only be issued upon findings of the following:

1. A showing of good and sufficient cause;
2. A determination that failure to grant the variance would result in exceptional hardship to the applicant; and

3. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense or create nuisances, cause fraud on or victimization of the public as identified in Section 18.04.010 or conflict with existing local laws or ordinances, and

4. That there are no practicable alternatives to the variance.

E. The Planning Commission may impose such conditions as are necessary to limit any adverse flooding or environmental impacts that may result from granting relief.

F. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below one foot above base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation. (Ord. 1461 Art. 4 § 4(B), 1980)

Section 18.04.150 General standards.

In all special flood hazard and all flood management areas the following standards are required:

A. Anchoring.

1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.

2. All manufactured homes shall be anchored to resist flotation, collapse or lateral movement by providing over-the-top and frame ties to ground anchors. Specific requirements shall be that:

- a. Over-the-top ties be provided at each of the four corners of the manufactured home, with two additional ties per side at intermediate locations, with manufactured homes less than fifty feet long requiring one additional tie per side;

- b. Frame ties be provided at each corner of the home with five additional ties per side at intermediate points, with manufactured homes less than fifty feet long requiring four additional ties per side;

- c. All components of the anchoring system be capable of carrying a force of four thousand eight hundred pounds; and

- d. Any addition to the manufactured home be similarly anchored.

3. An alternative method of anchoring may involve a system designed to withstand a wind force of ninety miles per hour or greater. Certification must be provided to the Director of Engineering that this standard has been met.

B. Construction Materials and Methods.

1. All new construction and substantial improvements shall be constructed with materials and utilize equipment resistant to flood damage.

2. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

C. Utilities.

1. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.

2. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters; and

3. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

D. Subdivision Proposals.

1. All subdivision proposals shall be consistent with the need to minimize flood damage.

2. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.

3. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage.

4. Base flood elevation data shall be provided for subdivision proposals and other proposed development which contain at least fifty lots or five acres (whichever is less).

E. Review of Building Permits. Where elevation data are not available, applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, etc., where available. (Ord. 1461 Art. 5 § 1, 1980)

F. Balanced Cut and Fill. The displacement of flood storage area by the placement of fill or structures (including building foundations) shall conform to the following standards for balanced cut and fill:

1. The placement of fill or structures that displaces 10 cubic yards or less of flood storage area is exempt from the requirements of 18.04.150(F)(2).

2. The placement of fill or structures that displaces more than 10 cubic yards of flood storage area shall comply with the following standards:

a. No net fill in any floodplain is allowed.

b. All fill placed in a floodplain shall be balanced with at least an equal amount of soil material removal.

c. Any excavation below bankful stage shall not count toward compensating for fill.

d. Excavation to balance a fill shall be located on the same parcel as the fill unless it is not reasonable or practicable to do so. In such cases, the excavation may be located in the same drainage basin and as close as possible to the fill site subject to the following:

1. The proposed excavation and fill will not increase flood impacts for surrounding properties as determined through hydrologic and hydraulic analysis;

2. the proposed excavation is authorized under applicable municipal code provisions including Section 19.322 Natural Resource Overlay Zone; and

3. measures to ensure the continued protection and preservation of the excavated area for providing balanced cut and fill shall be approved by the City.

e. Temporary fills permitted during construction shall be removed at the end of construction.

f. New culverts, stream crossings, and transportation projects shall be designed as balanced cut and fill projects or designed not to significantly raise the design flood elevation. Such projects shall be designed to minimize the area of fill in Flood Management Areas and to minimize erosive velocities. Stream crossings shall be as close to perpendicular to the stream as practicable. Bridges shall be used instead of culverts wherever practicable.

g. Excavation and fill required for the construction of detention facilities or structures, and other facilities, shall be designed to reduce or mitigate flood impacts and improve water quality. Levees shall not be used to create vacant buildable lands.

Section 18.04.160 Specific standards.

In all special flood hazard and flood management areas where base flood elevation data has been provided as set forth in Sections 18.04.050 and 18.04.120B, the following provisions are required:

A. Residential Construction. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot above base flood elevation.

B. Nonresidential Construction. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated one foot above design flood height, or, together with attendant utility and sanitary facilities, shall:

1. Be floodproofed so that below one foot above the design flood height the structure is watertight with walls substantially impermeable to the passage of water;

2. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and

3. Be certified by a registered professional engineer or architect that the design and methods of construction satisfy the standards of this subsection. Such certificates shall be provided to this official as set forth in Section 18.04.120(C).

C. Manufactured Homes.

1. All manufactured homes to be placed or substantially improved within zones A1-30, AH, and AE (as identified on Flood Insurance Rate Maps) shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is at or above the design flood height and be securely anchored to an adequately anchored foundation system in accordance with the provisions of Section 18.04.150(A).

2. For new manufactured home parks and manufactured home subdivisions; for expansions to existing manufactured home parks and manufactured home subdivisions; for existing manufactured home parks and manufactured home subdivisions where the repair, reconstruction or improvement of the streets, utilities and pads equals or exceeds fifty percent of value of the streets, utilities and pads before the repair, reconstruction or improvement has commenced; and for manufactured homes not placed in a manufactured home park or manufactured home subdivision, it is required that:

- a. Stands or lots are elevated on compacted fill or on pilings so that the lowest floor of the manufactured home will be elevated one foot above design flood height;

- b. Adequate surface drainage and access for a hauler are provided; and

- c. In the instance of elevation on pilings, that:

- i. Lots are large enough to permit steps,

- ii. Piling foundations are placed in stable soil no more than ten feet apart, and

- iii. Reinforcement is provided for pilings more than six feet above the ground level.

3. No manufactured home shall be placed in a floodway, except in an existing manufactured home park or existing manufactured home subdivision.

D. Miscellaneous Provisions.

1. For all new construction and substantial improvements, fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria: A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

2. Provisions of this chapter are to be administered concurrently with those of Ordinance 1438, the Zoning Ordinance of the city. (Ord. 1626 §§ 2(E), (F), (G)(part), (H), 1987; Ord. 1461 Art. 5 § 2, 1980)

Section 18.04.170 Floodways.

Located within areas of special flood hazard established in Section 18.04.050 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

A. Encroachments, including fill, new construction, substantial improvements, and other development are prohibited unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

B. If subsection A of this section is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Sections 18.04.150 through this section.

C. The placement of any manufactured home is prohibited, except in an existing manufactured home park or existing manufactured home subdivision. (Ord. 1626 § 2(G)(part), 1987; Ord. 1461 Art. 5 § 3, 1980)

Title 3 Erosion Control & Flood Management

Findings in Support of Adoption

1. Metro Growth Management Functional Plan requires all cities and counties in the metropolitan area to comply with substantive provisions of Title 3, which seeks to enhance protection of water resources and their related upland habitats.
2. The proposed regulations implement Title 3 performance standards for erosion control and flood management by strengthening existing erosion control regulations and by adopting new “balanced cut and fill” standards that preserve the storage capacity of city flood plains.
3. The proposed regulations are consistent with policies and objectives of Comprehensive Plan Chapter 3-Environmental and Natural Resources.
4. Application ZA-02-02 has been processed and public notice provided in accordance with requirements of the Oregon Revised Statutes and Milwaukie Zoning Ordinance. Adoption hearings for held on March 26, 2202 by the Planning Commission and April 16, 2002 by the City Council.
5. Application ZA-02-02 is consistent with Zoning Ordinance 900-Amendments and Section 1011.5-Legislative Actions.
6. Milwaukie adopted Title 18-Flood Hazard Regulations in 1980, which help protect against property losses and personal injury during major flood events. The proposed flood management area regulations compliment existing flood regulations by helping to preserve flood storage capacity of floodplains.
7. Milwaukie adopted Chapter 16.28-Erosion Control in 1979. These regulations establish requirements for the prevention of erosions and sedimentation, which can adversely affect water quality and habitat and city storm systems.
8. The proposed amendments are consistent with Title 3 except for the requirement to restrict storage of hazardous materials located within flood plains that can pollute floodwaters.
9. Since the early 1990's Milwaukie has sought to protect valuable natural resources through Zoning Ordinance Section 322-Natural Resource Overlay Zone. A key feature of these regulations is protection of water features. The proposed regulations are consistent with and supplement existing natural resource regulations and Comprehensive Plan policies.
10. Development of the proposed regulations included stakeholder outreach and public information efforts that included individual notice to property and business owners, environmental interest groups, and governmental agencies and articles in the city newsletter, *The Pilot*.

Title 3 Erosion Control & Flood Management Compliance Report

1. Consistency with the Milwaukie Comprehensive Plan & Metro Title 3

See the attached correspondence in Exhibit 2 that specify how the proposal is consistent with the Milwaukie Comprehensive Plan Policies, and consistency with Metro Title 3.

2. Consistency with Zoning Ordinance Section 900- Amendments.

Section 901 Initiation of Amendments

An amendment to the Milwaukie Zoning Map or to the text of this Ordinance may be initiated by the City Council, by the Planning Commission, or by the application of a property owner.

Staff Response: The proposal was initiated by the City and is therefore consistent with the above.

Section 902 Amendment Procedure

Section 902.1 The following application and review procedures shall be in effect for all proposed amendments:

- A. The Planning Commission shall conduct a public hearing on the proposed amendment at its earliest practicable meeting after the application has been determined to be complete by the Director. Zoning Map amendments shall follow the procedures outlined in subsection 1011.4, Major Quasi-Judicial review. Zoning text amendments shall follow the procedures outlined in subsection 1011.5, Legislative actions.

Staff Response: The application has been processed in accordance with Section 1011.5.

- B. Notice to Metro. The Planning Department shall provide notice to Metro of any proposed amendment to the Comprehensive Plan or Zoning Ordinance, subject to Milwaukie Zoning Ordinance subsection 1011.4, Major Quasi-Judicial review, and 1011.5, Legislative actions. Any copy of notice required pursuant to subsections 1011.4 and 1011.5, and provided to Oregon Department of Land Conservation and Development (DLCD) pursuant to ORS 197.610 or 197.615, shall be sent to Metro's Executive Officer at least 45 days before the final hearing on the adoption of any amendment. Notice to Metro shall include the same content as notice to DLCD pursuant to ORS 197.610 or 197.615 and, if available, shall include analysis demonstrating that the proposed amendments are consistent with

the Metro Urban Growth Management Functional Plan. If the analysis demonstrating consistency with the functional plan is not included in the initial notice, a report containing the analysis shall be delivered to Metro no later than 14 days before a final hearing.

Staff Response: Notice has been provided to the Oregon Department of Land Conservation and Development and Metro in accordance with the procedures above.

- C. Denial of the proposed amendment shall be final unless it is appealed to the City Council as provided under Section 1002 of this Ordinance.

Staff Response: The above provision does not apply at this time.

- D. Upon approval of the proposed amendment by the Planning Commission, the Director shall provide a report of the Commission's recommendation to the City Council within 40 days after the hearing.

Staff Response: Action on the application will be consistent with the above following Commission action.

Section 903 Requirements for Zoning Map Amendments.

Staff Response: Not applicable to this proposal.

Section 904 Requirements for Zoning Text Amendments

904.1. Proposals for zoning text amendments must provide written evidence that the following requirements are satisfied.

- A. Applicable requirements of Section 1003.

Staff Response: Section 1003 specifies submission requirements for all applications. This application is consistent with Section 1003.

- B. Reasons for requesting the proposed text amendments.

Staff Response: The request is made in accordance with City Council and Planning Commission direction to adopt city regulations that implement Title 3.

- C. Explanation of how the proposed text amendment is consistent with other provisions of this Ordinance.

Staff Response: This criterion is met through recommended findings of consistency with the Natural Resource Overlay Zone that are included in the staff report.

- D. The approval criteria of Section 905

Staff Response: See Section 905 below.

Section 905 Approval Criteria for All Amendments

905.1 for all proposals, the applicant shall have the burden of proof regarding the following criteria:

- A. The proposed amendment must conform to applicable Comprehensive Plan goals, policies, and objectives and be consistent with the provisions of City ordinances, Metro Urban Growth Management Functional Plan, and applicable regional policies.

Staff Response: Consistency with this criterion is demonstrated in preceding sections and by materials contained in Exhibit 2.

- B. The anticipated development must meet the intent of the proposed zone, taking into consideration the following factors: site location and character of the area, the predominant land use pattern and density of the area, the potential for mitigation measures adequately addressing development effects, any expected changes in the development pattern for the area, the need for uses allowed by the proposed zone amendment, and the lack of suitable alternative sites already appropriately zoned for the intended use or uses. The Planning Commission and City Council shall use its discretion to weigh these factors in determining the intent of the proposed zone.

Staff Response: This criterion applies to development in association with a rezoning and therefore does not apply to the proposed ordinance.

- C. The proposed amendment will meet or can be determined to reasonably meet applicable regional, State, or federal regulations.

Staff Response: The applicable Statewide Planning Goals are Goal 5- Open Spaces, Scenic and Historic Areas, and Natural Resources; Goal 7- Areas subject to Natural Disasters and Hazards; and Goal 15- Willamette River Greenway. The proposal is consistent with these Goals.

Chapter 16.28 EROSION CONTROL

Sections:

16.28.010 General Policy

16.28.010 Erosion 16.28.020 Erosion control permit and erosion control plans—

Applicability—Conformance.

16.28.020 Content 16.28.030 Contents of erosion control plan and general requirements.

16.28.030 16.28.040 Approval process—Fees.

16.28.040 Amendment 16.28.050 Maintenance and Amendment of inadequate measures.

16.28.050 Work in progress.

16.28.060 Enforcement—Violation—Penalty. 16.28.060 Work in progress.

16.28.070 Performance.

16.28.080 Erosion Control Certification.

16.28.090 Inspection

16.28.100 Deposit of Sediment

16.28.110 Enforcement—Violation—Penalty.

Section 16.28.010 General Policy

A. The policies of this chapter shall apply during construction and until permanent measures are in place following construction as described herein, unless otherwise noted.

B. Temporary and permanent measures for all construction projects shall be required to lessen the adverse effects of erosion and sedimentation. The owner or his/her agent, contractor, or employee, shall properly install, operate and maintain both temporary and permanent works as provided in this section or in an approved plan, to protect the environment during the useful life of the project. These erosion control rules apply to all lands within the City of Milwaukee.

C. Nothing in this chapter shall relieve any person from the obligation to comply with the regulations or permits of any federal, state, or local authority.

D. Maintenance and repair of existing facilities shall be the responsibility of the owner of record.

E. Erosion, sedimentation, and other pollutants reaching the public storm and/or surface water system resulting from development, construction, grading, filling, excavating, clearing, and any other activity which accelerates erosion shall be prevented.

F. No visible or measurable erosion shall leave the property during construction or during activity described in (E) above. The owner of the property, together with any person who causes such action from which the visible or measurable erosion occurs, shall be responsible for clean up, fines, and damages. Clean up responsibilities include clean up of creeks, drainageways, or wetlands impacted by a project. For the purposes of this chapter “visible and measurable erosion” includes, but is not limited to:

1. Deposits of mud, dirt, sediment or similar material exceeding one-half cubic foot in volume on public or private streets, adjacent property, or into the storm and surface water system, either by direct deposit, dropping, discharge, or as a result of the action of erosion;:

2. Evidence of concentrated flows of water over bare soils; turbid or sediment-laden flows; or evidence of onsite erosion such as rivulets or bare soil slopes, where the flow of water is not filtered or captured on the site, and/or;:

3. Earth slides, mud flows, earth sloughing, or other earth movement which results in material leaving the property.

G. Dust and other particulate matters containing pollutants can settle on property and be carried to waters of the state through rainfall or other means. Dust shall be minimized to the extent practicable, utilizing all measures necessary, including, but not limited to:

1. sprinkling haul and access roads and other exposed dust producing areas with water;
2. establishing temporary vegetative cover;
3. placing wood chips or other effective mulches on vehicle and pedestrian use areas;
4. use of covered haul equipment; and/or
5. pre-wetting cut and borrow area surfaces.

**Section 16.28.010 – ~~Erosion~~ 16.28.020 Erosion control permit and erosion control plans--
Applicability--Conformance.**

A. Definitions

~~1. “Erosion control permit” means the official approval issued by the City that demonstrates compliance with this chapter for activities described in the application form, erosion control plan, and related materials submitted pursuant to this Chapter.~~

2. “Erosion Control Plan” means all documents, maps, plans and other information specified in Section 16.28.030 and submitted in association with an application for an erosion control permit.

B. An erosion control plan that meets the requirements of Section 16.28.030 is required prior to any approval of an erosion control permit.

C. An erosion control permit is required as follows:

1. Prior to placement of fill, site clearing, or land disturbances including site clearing (grubbing, but not limited to grubbing, clearing or removal of vegetation), grading or construction of ground vegetation, grading, excavation, or other activities, any of which cause a ground disturbance in excess of five hundred square feet of area results in the disturbance or exposure of soils exceeding 500 square feet.

2. For disturbed areas or exposed soils less than 500 square feet, where the City has determined that site conditions may result in visible and measurable erosion and where the City has provided written notice of the requirement to obtain an erosion control permit to the property owner. Upon notice by the City, all work shall cease pending approval of an erosion control permit and installation of approved erosion control measures.

3. For any lot designated Natural Resource Overlay Zone pursuant to Milwaukie Zoning Ordinance Section 322, an erosion control permit shall be required prior to placement of fill, site clearing, or land disturbances including but not limited to grubbing, clearing or removal of ground vegetation, grading, excavation, or other activities, any of which has the potential for, or results in visible and measurable erosion, regardless of the area of disturbance.

D. An erosion control permit shall not be issued for activities on lots zoned Natural Resource Overlay, where the site activity has not been authorized, or is not exempt under the provisions of Milwaukie Zoning Ordinance Section 322 Natural Resource Overlay Zone as determined by the Planning Director. This provision does not apply where the erosion control permit is associated with correction of a violation of city code or as necessary for public safety, or the protection of property or water quality.

~~1. On any site where clearing activity will disturb an area in excess of five hundred square feet, approval~~
E. Timing. Approval of the erosion control plan permit is required prior to the following, whichever comes first.

~~1. Issuance of grading permits, building permits, or and approval of construction plans for subdivisions. All work on the site shall cease pending the approval of an erosion control plan and installation of approved erosion control subdivision; or measures.~~

~~C. By providing notice in writing to the property owner, the city may require an erosion control plan for any site clearing activity on sites which disturb an area of less than five hundred square feet, if the city determines that it is likely that an erosion problem will exist on that site as a result of the activity. All work on the site shall cease pending the approval of an erosion control plan and installation of approved erosion control measures.~~

~~D. An erosion control plan is required prior to any site disturbance or act of removing vegetation from a lot, or portion thereof, for all property identified on the Natural Resources Property List in the city's comprehensive plan.~~

~~—E. If the city determines that site clearing, as defined in subsection (A) above, has occurred without an erosion control plan for property included on the Natural Resource Property List of the city's comprehensive plan, regardless of the size of the area that has been disturbed, the city shall provide notice in writing to the property owner of the need for an erosion control plan. All work on the site shall cease pending approval of:~~

- ~~1. An erosion control plan;~~
 - ~~2. Installation of approved erosion control measures;~~
 - ~~3. An approved revegetation plan, if applicable; and~~
 - ~~4. Processing of any applicable review procedures as prescribed in Section 322 of the Milwaukie Zoning Ordinance.~~
2. Placement of fill, site clearing, land disturbances including but not limited to grubbing, clearing or removal of ground vegetation, grading, excavation, or other activities, any of which disturbs or exposes soil.

—F. Erosion control measures set forth in any approved erosion control plan shall be implemented and maintained on the site until the date set forth in the plan, or the amended date as necessary for the establishment of final landscaping. The city may allow for the removal of erosion control measures at an earlier date if erosion control is assured by established landscaping. (Ord. 1718 § 1 (part), 1992)

Section 16.28.020 – Content **16.28.030 Contents of erosion control plan and general requirements.**

A. Erosion control plans shall include a description of erosion control methods that are adequate to ensure that runoff siltation and pollutants from the grading, site clearing or construction are contained on-site during the period of activity on the site until the final landscaping is sufficiently established to control erosion. Each plan shall contain a date which is the estimated ending date for maintaining erosion control measures. That date may be extended if final landscaping has not been sufficiently established to control erosion. Plan submittal requirements, and recommended erosion control measures, are included in the Clackamas County/City of Milwaukie Technical Guidance Handbook for Erosion/Sedimentation Control Plans (August 1991) (Guidance Handbook), which is hereby adopted in total as part of this chapter. Copies of the Guidance Handbook are available for a fee at the city public works department. (Ord. 1718 § 1 (part), 1992)

Section 16.28.030 – Approval process – Fees.

~~—A. An erosion control plan shall be submitted to the city for review and approval prior to site clearing, grading or construction which will cause a ground disturbance in excess of five hundred square feet of area, or on smaller sites as determined by the city, or for any site clearing or disturbance on property identified on the Natural Resources Property List of the city's comprehensive plan.~~ B. At a minimum the Erosion Control Plan shall include:

1. The methods and/or facilities to be used to prevent erosion and pollution created from the development both during and after construction. Site-specific considerations shall be incorporated.
2. Limits of clearing by flagging boundaries in the field before starting site grading or construction. Staging areas shall be included.
3. An analysis of source controls such as detention and storage techniques during construction showing existing contours as an alternative method to control erosion from storm water runoff.
4. A drainage plan during construction.
5. Existing contours as well as all sensitive areas, creeks, streams, wetlands, open areas and areas of natural riparian vegetation pursuant to chapter 322.
6. A description of historic localized flooding problems resulting from surface water runoff, FEMA or flooding problems known to the community or the local jurisdiction.

C. A site plan prepared by an Oregon registered engineer shall be required for sites with disturbed area of 5 acres or greater.

D. Additional measures required by (C) above may include one or more of the following:

1. Limited area cleared at any one time.

2. Additional drainage requirements during construction.
3. Filtering or treatment of runoff.
4. Additional water quality measures.
5. Additional erosion control to cover portions of the site.
6. Maintaining some existing vegetation adjacent to water features, such as creeks, streams and wetlands or areas of natural riparian vegetation pursuant to chapter 322
7. Additional facilities to reduce volume and velocity of water runoff.
8. If there are no workable alternatives, limit clearing and grading in some areas between November 1 and April 30. ;
9. Additional measures required by the Guidance Handbook.

E. All construction activities disturbing five (5) or more acres shall obtain an NPDES erosion control permit for construction activities issued by the City of Milwaukie.

Section 16.28.040 Approval process--Fees.

B.—Fees to cover the cost of erosion control plan review, site inspections and the Clackamas County/City of Milwaukie Technical Guidance Handbook for Erosion/ Sedimentation Control Plans (August 1991) will be set by city council resolution. (Ord. 1718 § 1 (part), 1992)

Section 16.28.040 — Amendment of inadequate measures.

~~—An approved erosion control plan may be amended by the city if, prior to the establishment of final landscaping sufficient to control erosion, the city determines that the erosion control measures in the approved plan have not, in fact, controlled site erosion or runoff as intended. All work on the site shall cease pending approval of an amended erosion control plan and installation of approved erosion control measures. Such amendment shall be provided to the permittee in writing and shall be implemented by the permittee. (Ord. 1718 § 1 (part), 1992)~~
16.28.050 Maintenance and amendment of inadequate measures.

The applicant shall maintain all facilities required by an approved Erosion Control Plan so as to assure their continued effectiveness during construction or other permitted activity. If the facilities and techniques approved in an Erosion Control Plan are not effective or sufficient as determined by the City's site inspector, the permittee shall submit a revised plan within three working days of written notification by the City. In cases where erosion is occurring, the City may require the Applicant to implement interim control measures prior to submittal of a revised Erosion Control Plan and without limiting the City's right to undertake enforcement measures. Upon approval of the revised plan by the City, the permittee shall immediately implement the revised plan.

Section 16.28.05016.28.060 Work in progress.

Permittees or property owners for any site activities which were underway on the effective date of the ordinance codified in this chapter, may be required to prepare an erosion control plan for approval pursuant to this chapter. If the city determines that an erosion control problem exists, and requests an erosion control plan, ground work on the site shall cease pending approval of the plan and installation of approved erosion control measures. The provisions of this section shall apply only until final landscaping on the site is sufficiently established to control erosion. (Ord. 1718 § 1 (part), 1992)

Section 16.28.06016.28.070 Performance.

The City may require the Applicant to submit a bond, cashier's check or irrevocable letter of credit from an acceptable financial institution to secure performance of the requirements of this chapter. Upon default, the City may perform work or remedy violations and draw upon the bond or fund. If the City does not require a bond and the Developer does not perform the erosion control plan in whole or in part, the City may, but shall not be obligated to, perform or cause to be performed corrective work and charge the Developer. Such amount shall bear interest at 9% per annum and shall be a lien upon the property foreclosable in accordance with ORS Chapter 88.

Section 16.28.080 Erosion Control Certification.

A. Developers/contractors of building activities requiring erosion control permits who have a certified individual on staff with authority over erosion control and who is responsible for erosion control of the site, are eligible for a discount of their erosion control fees in accordance with the city fee schedule. On large or complex sites, the City may require an individual certified in erosion control to be on site at all times. Violations of this title that result in enforcement procedures described in Section 16.28.110, will result in revocation of the certification and require payment of the full erosion control fee. -Recertification is required following erosion control violations resulting in enforcement actions. If certification is revoked, there may be additional inspection fees.-

B. Certification shall involve training in erosion control techniques, issues, and implementation strategies. A minimum of four (4) hours of classroom instruction shall be required every two (2) years.

Section 16.28.090 Inspection

The erosion control measures shall be installed by the owner or their representative and shall be inspected by the City prior to the start of any excavation work.

Section 16.28.100 Deposit of Sediment

No person shall drag, drop, track, or otherwise place or deposit, or permit to be deposited, mud, dirt, rock or other such debris upon a public street or into any part of the public storm and surface water system, including natural drainage systems, or any part of a private storm and surface water system which drains or connects to the public storm and surface water system, with the exception of sanding for ice and snow and maintenance such as crack or chip sealing. Any such deposit of material shall be immediately removed using hand labor or mechanical means. No material shall be washed or flushed into the road/street or any part of the storm or surface water system without erosion control measures installed to the satisfaction of the City, and any such action shall be an additional violation.

Section 16.28.110 Enforcement--Violation--Penalty.

A. The public works director or designee shall enforce the provisions of this chapter.

B. Beginning or continuing site-clearing, grading or construction activities without an approved erosion control plan required by this chapter constitutes a violation of this chapter. Failure to implement the erosion control measures set forth in the approved erosion control plan constitutes a violation of this chapter. No building shall be certified for occupancy if the property is deemed to be in violation of this chapter. Any person convicted of violating this chapter shall be punished by a fine of not more than three hundred dollars. Each day that such violation exists shall be deemed a separate violation of this chapter. (Ord. 1718 § 1 (part), 1992)

Chapter 18.04

FLOOD HAZARD AREAS

Sections:

18.04.010	Purpose.
18.04.020	Methods of reducing flood losses.
18.04.030	Definitions.
18.04.040	Applicability.
18.04.050	Basis for establishing areas of special flood hazard <u>and flood management areas.</u>
18.04.060	Compliance required—Violation—Penalty.
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18.04.080	Interpretation.
18.04.090	Warning—Liability disclaimer.
18.04.100	Development permit required.
18.04.110	Public works director <u>Director of Engineering</u> —Designated administrator.
18.04.120	Public works director <u>Director of Engineering</u> —Duties and responsibilities.
18.04.130	Variance—Appeal board.
18.04.140	Variance—Conditions.
18.04.150	General standards.
18.04.160	Specific standards.
18.04.170	Floodways.

Section 18.04.010 Purpose.

It is the purpose of this chapter to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

- A. To protect human life and health;
- B. To minimize expenditure of public money and costly flood control projects;
- C. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- D. To minimize prolonged business interruptions;
- E. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;
- F. To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;
- G. To ensure that potential buyers are notified that property is in an area of special flood hazard; and,
- H. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions- (Ord. 1461 Art. 1 § 1, 1980); and
- I. To maintain the functions and values of floodplains such as allowing for storage and conveyance of stream flows through existing and natural flood conveyance systems.

Section 18.04.020 Methods of reducing flood losses.

In order to accomplish its purposes, this chapter includes methods and provisions for:

- A. Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;

B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

C. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;

D. Controlling filling, grading, dredging, and other development which may increase flood damage; and

E. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas. (Ord. 1461 Art. 1 § 2, 1980)

Section 18.04.030 Definitions.

Unless specifically defined in this section, the words or phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable application:

A. "Appeal" means to request review of the city's interpretation of any provision of this chapter or a request for a variance.

B. "Area of February 1996 inundation" means the areas along the Willamette River and its backwaters of Johnson and Kellogg Creeks that were flooded to elevation 34.5 (NGVD) in February of 1996.

~~B.C.~~ "Area of special flood hazard" means the land in the floodplain within a community subject to a one-percent or greater chance of flooding in any given year.

~~C.D.~~ "Base flood" means the flood having a one-percent chance of being equalled or exceeded in any given year.

~~D.E.~~ "City" means the city of Milwaukie, Oregon.

~~E.F.~~ "Critical feature" means an integral and readily identifiable part of a flood protection system, without which the flood protection provided by the entire system would be compromised.

~~F.G.~~ "Development" means any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations.

H. "Design Flood Height" means the higher elevation of the following:

1. the elevation of the 100-year storm as defined in FEMA Flood Insurance Studies and shown as Zone A on Flood Insurance Rate Maps; or

2. water surface elevation of 34.5, the elevation of the February 1996 flood event measured for the Willamette River.

~~G.I.~~ "FEMA" means the Federal Emergency Management Agency.

~~H.J.~~ "Flood" or "flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from:

1. The overflow of inland or tidal waters; or

2. The unusual and rapid accumulation of runoff of surface waters from any source.

~~I.K.~~ "Flood Insurance Rate Map (FIRM)" means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

~~J.L.~~ "Flood Insurance Study" means the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Boundary-Floodway Map, and the water surface elevation of the base flood.

M. "Flood Management Areas" means all lands contained within the 100-year floodplain, and floodway as shown on the Federal Emergency Management Agency Flood Insurance Rate Maps and Floodway Maps, and the areas of inundation for the February 1996 flood as shown on the Metro Water Quality and Flood Management Area Maps.

N. "Flood storage area" means that area below the design flood height but above bankful stage, which is capable of storing flood waters during a flood event.

K-Q. "Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

L-P. "Habitable floor" means any floor usable for living purposes, which includes working, sleeping, eating, cooking or recreation, or a combination thereof. A floor used only for storage purposes is not a "habitable floor".

M-Q. "Levee" means a manmade structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.

N-R. "Levee system" means a flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.

O-S. "Lowest floor" means the lowest floor of the lowest enclosed area (including basements and any crawlspace that is below grade). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage, in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable nonelevation design requirements of this chapter.

P-T. "Manufactured home" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designated for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes, the term "manufactured homes" also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than one hundred eighty consecutive days. For insurance purposes, the term "manufactured homes" does not include park trailers, travel trailers, and other similar vehicles.

Q-U. "Manufactured home park or subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

R-V. "Mean sea level" means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are reinforced.

S-W. "New construction" means structures for which the "start of construction" commenced on or after the effective date of the ordinance codified in this chapter.

T-X. "Remedy a violation" means to bring a structure or other development into compliance with state or local floodplain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of this chapter or otherwise deterring future similar violations, or reducing federal financial exposure with regard to the structure or other development.

U-Y. "Start of construction" means and includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within one hundred eighty days of the permit date. The "actual start" means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation, or the placement of a manufactured home on a foundation. "Permanent construction" does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footing, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory

buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.

~~V.Z.~~ "Structure" means that which is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner.

~~W.AA.~~ Substantial Improvement.

1. "Substantial improvement" means any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds fifty percent of the market value of the structure either:

a. Before the improvement or repair is started; or

b. If the structure has been damaged and is being restored, before the damage occurred.

For the purposes of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

2. "Substantial improvement" does not include either:

a. Any project for improvement of a structure to ~~comply with~~correct existing violations of state or local health, sanitary, or safety code specifications which ~~are solely~~have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or

b. Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

~~X.BB.~~ "Variance" means a grant of relief from the requirements of this chapter which permits construction in a manner that would otherwise be prohibited by this chapter.

~~Y.CC.~~ "Violation" means the failure of a structure or other development to be fully compliant with the city's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in the FEMA standards is presumed to be in violation until such time as that documentation is provided.

~~Z.DD.~~ "Water surface elevation" means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929, (or other datum, where specified) of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas. (Ord. 1626 § 2(A), (B), 1987; Ord. 1461 Art. 2, 1980)

Section 18.04.040 Applicability.

~~A.~~ This chapter shall apply to all ~~areas of~~ special flood hazards areas and all flood management management areas within the jurisdiction of the city. (Ord. 1461 Art. 3 § 1, 1980)

~~B.~~ In the event that a claim for just compensation is made against the City pursuant to Article I, section 18 of the Oregon Constitution based on the application or enforcement of this title, the City Council may waiver, suspend, or modify application or enforcement of this title if the City Council determines that application or enforcement would result in an unconstitutional taking. In the event that the waiver, suspension or modification results in a state statute or regulation becoming directly applicable, the City will enforce the state law as required.

Section 18.04.050 Basis for establishing ~~areas of~~ special flood hazard and flood management areas.

~~A.~~ The areas of special flood hazard identified by the Federal Insurance Administration in the scientific and engineering report entitled "The Flood Insurance Study for the City of Milwaukie," ~~to be dated June 18, 1980, dated December 1979,~~ with accompanying Flood Insurance Rate Maps, ~~is~~ Maps and Floodway Maps, dated June 18, 1990, and other FEMA maps

and studies for those areas annexed or restudied, are adopted by reference and declared to be a part of this chapter. The Flood Insurance Study is on file at ~~10722 S.E. Main Street~~ 6101 SE Johnson Creek Boulevard, Milwaukie, Oregon. (Ord. 1461 Art. 3 § 2, 1980)

B. Those areas designated as Flood Management Areas on the Water Quality and Flood Management Areas Maps prepared by Metro are adopted by reference and declared to be a part of this chapter. Copies of the Metro Water Quality and Flood Management Areas Maps for the City of Milwaukie are on file at 6101 Johnson Creek Boulevard, Milwaukie, Oregon.

Section 18.04.060 Compliance required--Violation--Penalty.

No structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the terms of this chapter and other applicable regulations. Violation of the provisions of this chapter shall be punishable by a fine of not more than one thousand dollars. Nothing contained in this subsection shall prevent the city from taking such other lawful action as is necessary to remedy any violation. (Ord. 1461 Art. 3 § 3, 1980)

Section 18.04.070 Abrogation and greater restrictions.

This chapter is not intended to repeal, abrogate or impair any existing easements, covenants or deed restrictions. However, where this chapter and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail. (Ord. 1461 Art. 3 § 4, 1980)

Section 18.04.080 Interpretation.

In the interpretation and application of this chapter, all provisions shall be:

A. Considered as minimum requirements;

B. Liberally construed in favor of the city; and

C. Deemed neither to limit nor repeal any other powers granted under state statutes. (Ord. 1461 Art. 3 § 5, 1980)

Section 18.04.090 Warning--Liability disclaimer.

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural cases. This chapter does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the city, any officer or employee thereof, or the Federal Insurance Administration, for flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder. (Ord. 1461 Art. 3 § 6, 1980)

Section 18.04.100 Development permit required.

A development permit shall be obtained before construction or development begins within any ~~area of~~ special flood hazard or flood management area established in Section 18.04.050. The permit shall be for all structures, including manufactured homes, as set forth in Section 18.04.030 and for all other development including fill and other activities, also as set forth in Section 18.04.030. Application for a development permit shall be made on forms furnished by the ~~public works director~~ Director of Engineering and may include, but not be limited to: plans in duplicate drawn to scale showing the nature, location, dimensions and elevations of the area in question; existing or proposed structures, fill, storage of materials,

drainage facilities, and the location of the foregoing. Specifically, the following information is required:

- A. Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures;
- B. Elevation in relation to mean sea level to which any structure has been floodproofed;
- C. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in Section 18.04.160B; and
- D. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development. (Ord. 1626 § 2(G)(part), 1987; Ord. 1461 Art. 4 § 1, 1980)

Section 18.04.110 ~~Public works director~~Director of Engineering--Designated administrator.

The ~~public works director~~Director of Engineering is appointed to administer and implement this chapter by granting or denying development permit applications in accordance with its provisions. (Ord. 1461 Art. 4 § 2, 1980)

Section 18.04.120 ~~Public works director~~Director of Engineering--Duties and responsibilities.

Duties of the ~~public works director~~Director of Engineering shall include, but not be limited to:

- A. Permit Review.
 - 1. Review all development permits to determine that the permit requirements of this chapter have been satisfied;
 - 2. Review all development permits to determine that all necessary permits have been obtained from those federal, state or local governmental agencies from which prior approval is required;
 - 3. Review all permit applications to determine whether proposed building sites will be reasonably safe from flooding. If a proposed building site is in a flood-prone area, all new construction and substantial improvements shall:
 - a. Be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
 - b. Be constructed with materials resistant to flood damage;
 - c. Be constructed by methods and practices that minimize flood damages; and
 - d. Be constructed with electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- B. Use of Available Base Flood Data. When base flood and floodway elevation data has not been provided for flood zones in accordance with Section 18.04.050, the ~~public works director~~Director of Engineering shall obtain, review and reasonably utilize any base flood and floodway elevation data available from a federal, state or other source, in order to administer Section 18.04.160(A) and Section 18.04.160(B).
- C. Information to be Obtained and Maintained.
 - 1. Obtain and record the actual elevation (in relation to mean sea level) of the lowest habitable floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.
 - 2. For all new or substantially improved floodproofed structures:
 - a. Verify and record the actual elevation (in relation to mean sea level), and

b. Maintain the floodproofing certifications required in Section 18.04.100(C) of this chapter;

3. Maintain for public inspection all records pertaining to the provisions of this chapter.

D. Alteration of Watercourses.

1. Notify adjacent communities and the Federal Emergency Management Agency (FEMA), Insurance and Mitigation Division, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration;

2. Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.

E. Interpretation of FIRM ~~Boundaries~~ and flood management area boundaries. Make interpretations, where needed, as to exact location of the boundaries of the ~~areas of special flood hazards~~ and/or flood management areas (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 18.04.130. (Ord. 1651 § 2, 1989; Ord. 1461 Art. 4 § 3, 1980)

Section 18.04.130 Variance--Appeal board.

A. The planning commission as established by the city shall hear and decide appeals and requests for variances from the requirements of this chapter.

B. The planning commission shall hear and decide appeals when it is alleged there is an error in any requirement, decision or determination made by the ~~public works director~~ Director of Engineering in the enforcement or administration of this chapter.

C. Those aggrieved by the decision of the planning commission or any taxpayer, may have the determination reviewed by the city council and then under ORS 34.010 to 34.100.

D. In passing upon such applications, the planning commission shall consider all technical evaluation, all relevant factors and standards specified in other section of this chapter, and:

1. The danger that materials may be swept onto lands to the injury of others;
2. The danger of life and property due to flooding or erosion damage;
3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
4. The importance of the services provided by the proposed facility to the community;
5. The necessity to the facility of a waterfront location, where applicable;
6. The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
7. The compatibility of the proposed use with existing anticipated development;
8. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
9. The safety of access to the property in times of flood for ordinary and emergency vehicles;
10. The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and
11. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.
12. The balancing of potentially adverse environmental impacts that may result from meeting the requirements of this Chapter against the need to minimize impacts of new development on flood heights.

E. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with

existing structures constructed below the base flood level, providing subdivisions 1 through ~~4-12~~ of subsection D of this section have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.

F. Upon consideration of the factors of subsection D of this section and the purposes of this chapter, the planning commission may attach such conditions to the granting of variances as it deems necessary to further the purposes of this chapter.

G. The ~~public works director~~ Director of Engineering shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request. (Ord. 1461 Art. 4 § 4(A), 1980)

Section 18.04.140 Variance--Conditions.

A. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this section.

B. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

C. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

D. Variances shall only be issued upon findings of the following:

1. A showing of good and sufficient cause;
2. A determination that failure to grant the variance would result in exceptional hardship to the applicant; and
3. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense or create nuisances, cause fraud on or victimization of the public as identified in Section 18.04.010 or conflict with existing local laws or ordinances; and

4. That there are no practicable alternatives to the variance.

E. The Planning Commission may impose such conditions as are necessary to limit any adverse flooding or environmental impacts that may result from granting relief.

~~EF.~~ Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below one foot above base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation. (Ord. 1461 Art. 4 § 4(B), 1980)

Section 18.04.150 General standards.

In all ~~areas of special flood hazards~~ and all flood management areas the following standards are required:

A. Anchoring.

1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.

2. All manufactured homes shall be anchored to resist flotation, collapse or lateral movement by providing over-the-top and frame ties to ground anchors. Specific requirements shall be that:

a. Over-the-top ties be provided at each of the four corners of the manufactured home, with two additional ties per side at intermediate locations, with manufactured homes less than fifty feet long requiring one additional tie per side;

b. Frame ties be provided at each corner of the home with five additional ties per side at intermediate points, with manufactured homes less than fifty feet long requiring four additional ties per side;

c. All components of the anchoring system be capable of carrying a force of four thousand eight hundred pounds; and

d. Any addition to the manufactured home be similarly anchored.

3. An alternative method of anchoring may involve a system designed to withstand a wind force of ninety miles per hour or greater. Certification must be provided to the ~~public works director~~ Director of Engineering that this standard has been met.

B. Construction Materials and Methods.

1. All new construction and substantial improvements shall be constructed with materials and utilize equipment resistant to flood damage.

2. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

C. Utilities.

1. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.

2. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters; and

3. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

D. Subdivision Proposals.

1. All subdivision proposals shall be consistent with the need to minimize flood damage.

2. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.

3. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage.

4. Base flood elevation data shall be provided for subdivision proposals and other proposed development which contain at least fifty lots or five acres (whichever is less).

E. Review of Building Permits. Where elevation data are not available, applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, etc., where available. (Ord. 1461 Art. 5 § 1, 1980)

F. Balanced Cut and Fill. The displacement of flood storage area by the placement of fill or structures (including building foundations) shall conform to the following standards for balanced cut and fill:

1. The placement of fill or structures that displaces 10 cubic yards or less of flood storage area is exempt from the requirements of 18.04.150(F)(2).

2. The placement of fill or structures that displaces more than 10 cubic yards of flood storage area shall comply with the following standards:

a. No net fill in any floodplain is allowed.

b. All fill placed in a floodplain shall be balanced with at least an equal amount of soil material removal.

c. Any excavation below bankful stage shall not count toward compensating for fill.

d. Excavation to balance a fill shall be located on the same parcel as the fill unless it is not reasonable or practicable to do so. In such cases, the excavation may be located in the same drainage basin and as close as possible to the fill site subject to the following:

1. The proposed excavation and fill will not increase flood impacts for surrounding properties as determined through hydrologic and hydraulic analysis;

2. the proposed excavation is authorized under applicable municipal code provisions including Section 19.322 Natural Resource Overlay Zone; and

3. measures to ensure the continued protection and preservation of the excavated area for providing balanced cut and fill shall be approved by the City.

e. Temporary fills permitted during construction shall be removed at the end of construction.

f. New culverts, stream crossings, and transportation projects shall be designed as balanced cut and fill projects or designed not to significantly raise the design flood elevation. Such projects shall be designed to minimize the area of fill in Flood Management Areas and to minimize erosive velocities. Stream crossings shall be as close to perpendicular to the stream as practicable. Bridges shall be used instead of culverts wherever practicable.

g. Excavation and fill required for the construction of detention facilities or structures, and other facilities, shall be designed to reduce or mitigate flood impacts and improve water quality. Levees shall not be used to create vacant buildable lands.

Section 18.04.160 Specific standards.

In all ~~areas of~~ special flood hazards and flood management areas where base flood elevation data has been provided as set forth in Sections 18.04.050 and 18.04.120B, the following provisions are required:

A. Residential Construction. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot above base flood elevation.

B. Nonresidential Construction. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated one foot above ~~base flood elevation~~ design flood height, or, together with attendant utility and sanitary facilities, shall:

1. Be floodproofed so that below one foot above the ~~base flood level~~ design flood height the structure is watertight with walls substantially impermeable to the passage of water;

2. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and

3. Be certified by a registered professional engineer or architect that the design and methods of construction satisfy the standards of this subsection. Such certificates shall be provided to this official as set forth in Section 18.04.120(C).

C. Manufactured Homes.

1. All manufactured homes to be placed or substantially improved within zones A1-30, AH, and AE (as identified on Flood Insurance Rate Maps) shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is at or above the design flood height ~~base flood elevation~~ and be securely anchored to an adequately anchored foundation system in accordance with the provisions of Section 18.04.150(A).

2. For new manufactured home parks and manufactured home subdivisions; for expansions to existing manufactured home parks and manufactured home subdivisions; for existing manufactured home parks and manufactured home subdivisions where the repair, reconstruction or improvement of the streets, utilities and pads equals or exceeds fifty percent of value of the streets, utilities and pads before the repair, reconstruction or improvement has commenced; and for manufactured homes not placed in a manufactured home park or manufactured home subdivision, it is required that:

a. Stands or lots are elevated on compacted fill or on pilings so that the lowest floor of the manufactured home will be elevated one foot above design flood height ~~base flood elevation~~;

b. Adequate surface drainage and access for a hauler are provided; and

c. In the instance of elevation on pilings, that:

i. Lots are large enough to permit steps,

ii. Piling foundations are placed in stable soil no more than ten feet apart, and

iii. Reinforcement is provided for pilings more than six feet above the ground level.

3. No manufactured home shall be placed in a floodway, except in an existing manufactured home park or existing manufactured home subdivision.

D. Miscellaneous Provisions.

1. For all new construction and substantial improvements, fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria: A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

2. Provisions of this chapter are to be administered concurrently with those of Ordinance 1438, the Zoning Ordinance of the city. (Ord. 1626 §§ 2(E), (F), (G)(part), (H), 1987; Ord. 1461 Art. 5 § 2, 1980)

Section 18.04.170 Floodways.

Located within areas of special flood hazard established in Section 18.04.050 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

A. Encroachments, including fill, new construction, substantial improvements, and other development are prohibited unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

B. If subsection A of this section is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Sections 18.04.150 through this section.

C. The placement of any manufactured home is prohibited, except in an existing manufactured home park or existing manufactured home subdivision. (Ord. 1626 § 2(G)(part), 1987; Ord. 1461 Art. 5 § 3, 1980)